

ABSTRACT OF THE DISCLOSURE

An alloy powder containing at least one element selected from the group consisting of the Group 14 elements exclusive of C and the Group 13 elements exclusive of Tl is subjected to a mechanical milling treatment, to obtain a negative electrode active material. Alternately, a raw material including a powder containing at least one element selected from the group consisting of the Group 14 elements exclusive of C and the Group 13 elements exclusive of Tl is subjected to a mechanical alloying treatment at a reaction temperature of below 90 °C, to obtain a negative electrode active material. The negative electrode active material is restrained from the expansion and contraction attendant on the doping and dedoping of lithium which is characteristic of the alloy material, a negative electrode using the negative electrode active material is restrained from the change to a particulate form attendant on charging and discharging, and a nonaqueous electrolyte cell using the negative electrode shows both an excellent charging-discharging cycle characteristic and a high discharging capacity.